LISTING OF CLAIMS

The listing of claims provided below replaces all prior versions, and listings, of claims in the application.

1. (Original) A method for testing a quality of communication data received from a system under test (SUT), comprising the operations of:

storing reference test data comprising a plurality of data segments;

receiving degraded test data from the SUT, the received degraded test data comprising a plurality of data segments;

locating the data segments in the degraded test data;

corresponding data segments in the degraded test data to related data segments in the reference test data; and

comparing the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

- 2. (Original) A method as recited in claim 1, further comprising the operation of normalizing the degraded test data prior to locating the data segments.
- 3. (Original) A method as recited in claim 2, wherein the degraded test data is normalized utilizing a fixed point Fourier transform.
- 4. (Original) A method as recited in claim 3, further comprising the operation of applying a receive filter to the normalized test data utilizing a fixed point operation.

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- 5. (Original) A method as recited in claim 4, wherein the test data is speech data.
- 6. (Original) A method as recited in claim 1, further comprising the operation of generating a perceptual evaluation signal quality (PESQ) result based on the comparison of the data segments in the degraded test data to corresponding data segments in the reference test data.
- 7. (Original) A method as recited in claim 6, further comprising the operation of storing the PESQ result to a quality of service (QoS) data file.
- 8. (Original) A system for testing a quality of communication data received from a system under test (SUT), comprising:

an encoder that encodes reference test data, the reference test data comprising a plurality of data segments;

a decoder that decodes degraded test data received from the SUT in real-time during testing of the SUT, the degraded test data comprising a plurality of data segments; and

a fixed point based logic unit that compares the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

9. (Original) A system as recited in claim 8, wherein the fixed point based logic locates data segments in the degraded test data.

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- 10. (Original) A system as recited in claim 9, wherein the fixed point based logic further corresponds data segments in the degraded test data to related data segments in the reference test data.
- 11. (Original) A system as recited in claim 10, wherein the fixed point based logic normalizes the degraded test data prior to locating the data segments using a fixed point Fourier transform.
- 12. (Original) A system as recited in claim 11, wherein the fixed point based logic applies a receive filter to the normalized test data utilizing a fixed point operation.
- 13. (Original) A system as recited in claim 12, wherein the test data is speech data.
- 14. (Original) A computer program embodied on a computer readable medium for testing a quality of communication data received from a system under test (SUT), comprising:

program instructions that store reference test data comprising a plurality of data segments;

program instructions that receive degraded test data from the SUT, the received degraded test data comprising a plurality of data segments;

program instructions that locate the data segments in the degraded test data;

program instructions that correspond data segments in the degraded test data to related data segments in the reference test data; and

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program instructions that compare the data segments in the degraded test data to corresponding data segments in the reference test data using a fixed point operation.

15 [[16]]. (Currently Amended) A computer program as recited in claim 14 [[15]], further comprising program instructions that normalize the degraded test data prior to locating the data segments.

16 [[17]]. (Currently Amended) A computer program as recited in claim 15 [[16]], wherein the degraded test data is normalized utilizing a fixed point Fourier transform.

17 [[18]]. (Currently Amended) A computer program as recited in claim 16 [[17]], further comprising program instructions that apply a receive filter to the normalized test data utilizing a fixed point operation.

18 [[19]]. (Currently Amended) A computer program as recited in claim 17 [[18]], wherein the test data is speech data.

19 [[20]]. (Currently Amended) A computer program as recited in claim 14, further comprising program instructions that generate a perceptual evaluation signal quality (PESQ) result based on the comparison of the data segments in the degraded test data to corresponding data segments in the reference test data.

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